



# **STIC Search Report**

## **Biotech-Chem Library**

STIC Database Tracking Number: 130284

TO: Manjunath N Rao  
Location: REM-2A01&2c70  
Art Unit: 1652  
Wednesday, August 25, 2004

Case Serial Number: 10/059447

From: Barb O'Bryen  
Location: Biotech-Chem Library  
Remsen 1A69  
Phone: 571-272-2518 *BOB*

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### Search Notes

GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: August 23, 2004, 18:57:25 ; Search time 0.537723 Seconds  
(without alignments)  
677.842 Million cell updates/sec

Title: US-10-059-447B-6  
Perfect score: 32  
Sequence: 1 IILKEF 7

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 141681 seqs, 52070155 residues

Total number of hits satisfying chosen parameters: 141681

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : SwissProt\_42:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

| Result No. | Score | Query Match | Length | ID            | Description        |
|------------|-------|-------------|--------|---------------|--------------------|
| 1          | 29    | 90.6        | 101    | 1 GLRX_CHICK  | P79764 gallus gall |
| 2          | 28    | 87.5        | 467    | 1 PCXA_ANASP  | Q8960 anabaena sp  |
| 3          | 28    | 87.5        | 1640   | 1 CO3_ONCMY   | P98093 oncorhynch  |
| 4          | 28    | 87.5        | 2560   | 1 PPS2_BACSU  | P39846 bacillus su |
| 5          | 27    | 84.4        | 227    | 1 COMB_THEMEA | Q9WZQ4 thermotoga  |
| 6          | 27    | 84.4        | 307    | 1 K1PF_BORBU  | O51575 borrelia bu |
| 7          | 27    | 84.4        | 517    | 1 T2FA_HUMAN  | P35269 homo sapien |
| 8          | 27    | 84.4        | 574    | 1 STR_BUCAI   | Q44683 buchnera ap |
| 9          | 27    | 84.4        | 1245   | 1 NARZ_ECOLI  | P19319 escherichia |
| 10         | 26    | 81.2        | 180    | 1 Y047_METUA  | Q58644 methanococ  |
| 11         | 26    | 81.2        | 207    | 1 Y078_METUA  | Q50385 methanococ  |
| 12         | 26    | 81.2        | 261    | 1 SUHB_NELMA  | Q9JU03 neisseria m |
| 13         | 26    | 81.2        | 266    | 1 CEMA_CHLVU  | P56349 chlorella v |
| 14         | 26    | 81.2        | 269    | 1 TFSI_MORSP  | Q01893 moraxella s |
| 15         | 26    | 81.2        | 332    | 1 MDHC_ARATH  | P93819 arabidopsis |
| 16         | 26    | 81.2        | 332    | 1 MDHC_BETVU  | Q9SM18 beta vulgar |
| 17         | 26    | 81.2        | 332    | 1 MDHC_MAIZE  | Q80622 zea mays (m |
| 18         | 26    | 81.2        | 332    | 1 MDHC_MEDSA  | O48905 medicago sa |
| 19         | 26    | 81.2        | 332    | 1 MDHC_MESCR  | Q24047 mesembryant |
| 20         | 26    | 81.2        | 332    | 1 MDHD_ARATH  | P57106 arabidopsis |
| 21         | 26    | 81.2        | 332    | 1 YIEZ_HSVB4  | Q02484 bovine herp |
| 22         | 26    | 81.2        | 413    | 1 SYH_FUSIN   | Q02484 bovine herp |
| 23         | 26    | 81.2        | 429    | 1 RNE_GUTH    | Q89J5 fusobacteri  |
| 24         | 26    | 81.2        | 504    | 1 C6A5_DROME  | O78453 guillardia  |
| 25         | 26    | 81.2        | 576    | 1 YITO_YEAST  | Q37594 drosophila  |
| 26         | 26    | 81.2        | 600    | 1 NUCD_BUCAI  | P40568 saccharomyc |
| 27         | 26    | 81.2        | 630    | 1 GATE_METUA  | P57254 buchnera ap |
| 28         | 26    | 81.2        | 647    | 1 NTFI_MSEPV  | Q80325 methanococ  |
| 29         | 26    | 81.2        | 837    | 1 LTR_MOUSE   | Q9YW39 melanoplus  |
| 30         | 26    | 81.2        | 840    | 1 LZTR_HUMAN  | Q9CQ33 mus musculu |
| 31         | 26    | 81.2        | 914    | 1 GUX2_CLOSR  | Q8N653 homo sapien |
| 32         | 26    | 81.2        | 918    | 1 CAPP_CORGL  | P50900 clostridium |
| 33         | 26    | 81.2        | 919    | 1 CAPP_CORCT  | P12880 corynebacte |
|            |       |             |        |               | Q93mh3 corynebacte |

## ALIGNMENTS

## RESULT 1

GLRX\_CHICK  
ID GLRX\_CHICK STANDARD; PRT; 101 AA.  
AC P79764;  
DT 01-NOV-1997 (Rel. 35, Created)  
DT 01-NOV-1997 (Rel. 35, Last sequence update)  
DT 28-FEB-2003 (Rel. 41, Last annotation update)  
DE Glutaredoxin (Thioltransferase) (Ttase).  
GN GLRX OR GRX.  
OS Gallus gallus (Chicken).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;  
OC Gallus.  
OX NCBI\_TaxID=9031;  
RN [1]  
RP SEQUENCE FROM N.A.  
RX MEDLINE=98334490; PubMed=9671415;  
RA Goller M.E., Iacovoni J.S., Vogt P.K., Kruse U.;  
RT "Glutaredoxin is a direct target of oncogenic jun."  
RL **OncoGene 16:2945-2948(1998).**  
CC **!- FUNCTION:** Has a glutathione-disulfide oxidoreductase activity in  
CC the presence of NADPH and glutathione reductase. Reduces low  
CC molecular weight disulfides and proteins.  
CC **!- SUBCELLULAR LOCATION:** Cytoplasmic.  
CC **!- SIMILARITY:** Belongs to the glutaredoxin family.  
CC  
CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
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CC  
CC EMBL; Y09235; CAA70437.1; -  
CC HSSP; P35754; LJHB.  
DR InterPro; IPR002109; Glutaredoxin.  
DR Pfam; PF00462; Glutaredoxin; 1.  
DR PRINTS; PR00160; GLUTAREDOXIN.  
DR PROSITE; PS00195; GLUTAREDOXIN; 1.  
KW Redox-active center; Electron transport.  
FT DISULFID 23 26 REDOX-ACTIVE (BY SIMILARITY).  
SQ SEQUENCE 101 AA; 11397 MW; 50619DBE1E54656F2 CRC64;

Query Match Score 29; DB 1; Length 101;  
Best Local Similarity 71.4%; Pred. No. 8.6;  
Matches 5; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 IILKEF 7  
Db 30 IIVLKEF 36

## RESULT 2

PCXA\_ANASP  
ID PCXA\_ANASP STANDARD; PRT; 467 AA.